1-27-2021

2021 Nebraska Crop Budgets Review

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AGRICULTURAL ECONOMICS

January 27, 2021

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Cornhusker Economics

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For the 2021 production year, 83 budgets for 15 crops including 2 cover crops and pasture budgets are available from the University of Nebraska-Lincoln, the Department of Agricultural Economics and UNL Crop Specialists. The budgets are published online at cropwatch.unl.edu/budgets in two formats including a printable pdf file version and an Excel file version. Information on crop budgeting procedures, machinery operation and ownership costs, material and service prices, and a crop budget production cost summary are included in the format of each budget. In general, cash costs per bushel of corn for both dryland and irrigated budgets were projected lower for 2021, primarily due to lower fuel costs, with a dryland corn average cost of $2.34 per bushel and $2.28 per bushel on irrigated corn. A new spring wheat budget was added representing cropping practices in southwest Nebraska, using no-till, wheat after row crop rotation on non-irrigated land. Using a projected 40-bushel yield, cash costs for this spring wheat budget are calculated at $4.25 per bushel with a total economic cost per bushel estimated at $6.00.

While the crop budgets do not estimate returns with revenue projections, the budgets are based on a projected yield which is used to calculate both a total economic and a cash cost per unit of production. Cash costs do not include ownership cost of machinery and equipment used in field operations and a real estate opportunity cost. Economic costs include an opportunity cost of land, plus equipment and depreciation costs of machinery and equipment. Land values from the 2020 Nebraska Farm Real Estate Report are used in the budgets. The land values increased overall including just over 3% for dryland (State), 5% for dryland (Eastern, NE) and 2.5% for statewide irrigated land values. If an operator rents crop ground and is calculating the cost of production, the land value and real estate taxes can be deleted in the Excel worksheet and replaced by the amount paid for cash rent. Paying cash rent, instead of land ownership opportunity costs which are non-cash expenses, will increase the cash costs per acre and per unit.

In addition to depreciation and ownership costs of machinery and equipment, field operation costs include labor, fuel, and repair expenses. Repairs and depreciation expenses are figured using the Society of Agricultural Engineers formulas and equations for power units and implements. The 2021 labor rate remained the same as last year's figure of $25 per hour. Labor costs for each operation are calculated using machinery accomplishment rates and are adjusted for additional time required for getting machinery ready, adjusting machinery, and handling fertilizer and crop inputs. With a drop in oil prices during the 2020 pandemic, the diesel fuel price projected in the budgets dropped significantly, from $2.27/gallon in 2020 to $1.50/gallon for 2021. Fuel costs per acre are calculated using machinery accomplishment rates as well as estimated fuel consumption rates. With the significant drop in oil price, some fertilizer and crop pesticide material costs also declined; therefore, in most of the crop budgets, total materials and services per acre dropped. An increase in overhead cost per acre

was made in the 2021 budgets, going from $20 to $25 per acre. Overall, with all adjustments considered, cash and economic costs per production unit remained generally steady from the 2020 budgets to the new budgets for 2021.

There are several contributing sources assisting with information for the budgets including agricultural suppliers and University of Nebraska-Lincoln crop and agricultural economics specialists. Robert Klein, Emeritus Professor and Extension Cropping Systems Specialist, has led the effort in researching price expectations for input costs and crop budget updates for many years. The 2021 Nebraska crop budgets were created using assumptions thought to be valid for many producers in Nebraska; however, each farming operation is unique. The budgets are published as a guide and should be examined carefully prior to being used for decision making by individual producers.

The new Agricultural Budget Calculator (ABC) program, currently in development in the Department of Agricultural Economics, is available to producers and anyone to use and test now. At this point, the new program can be utilized to create crop budgets or download a University of Nebraska budget into ABC and then modify it to fit the cropping practice, prices, and inputs of the user. This website, farm.unl.edu/abc provides more information on the program and includes the link to register for the program.

Resources:

2021 Nebraska Crop Budgets - cropwatch.unl.edu/budgets

Nebraska Farm Real Estate Report 2020 - agecon.unl.edu/2020-nebraska-farm-real-estate-report

Agricultural Budget Calculator (ABC) program - farm.unl.edu/abc

Table 1: Summary of 2021 Corn Budgets

2021 Corn Budgets– Dryland		Yield Est.	Cash Cost /bu	Economic Cost /bu
Budget #	***Dryland (11 budgets)***			
15	*Conv Till, Continuous	100	$3.04	$4.51
16	Conv Till, Corn / SB Rotation	110	$2.53	$3.81
17	Conv Till, Continuous (Eastern)	160	$2.31	$3.77
18	Conv Till, Corn / SB Rotation (Eastern)	170	$2.03	$3.37
19	No Till, Continuous	135	$2.46	$3.43
20	No Till, Continuous (Eastern)	180	$2.21	$3.44
21	No Till, Continuous	140	$2.43	$3.36
22	No Till, Continuous (Eastern)	185	$2.16	$3.36
23	No Till, after Beans	145	$2.28	$3.19
24	No Till, after Beans (Eastern)	195	$1.98	$3.12
25	Ecofallow follows Wheat (Southwest)	130	$2.36	$3.01
2021	***Dryland Corn Average***	**150**	**$2.34**	**$3.49**

Table 1. continued

	2021 Corn Budgets - Irrigated	Yield Est.	Cash Cost /bu	Economic Cost /bu
Budget #	***Irrigated (14 budgets)***			
26	Ridge Till, Continuous	245	$2.18	$3.15
27	Ridge Till, after Beans	255	$2.01	$2.93
28	Ridge Till, Continuous	250	$2.21	$3.18
29	Conv Till, Continuous (Panhandle)	175	$2.55	$3.27
30	No Till, Continuous	245	$2.19	$3.15
31	No Till, Continuous	250	$2.15	$3.09
32	No Till, after Beans	275	$1.94	$2.80
33	No Till, after Beans	275	$1.99	$2.85
34	No Till, after Beans	275	$1.99	$2.86
35	Conv Till, Continuous	235	$2.37	$3.46
36	Conv Till, after Beans	245	$2.16	$3.18
37	Conv Till, Continuous (Panhandle)	175	$2.99	$3.80
38	Conv Till, after Beans (Panhandle)	185	$2.76	$3.50
39	Conv Till, Continuous	240	$2.47	$3.53
2021	***Irrigated Corn Average***	**238**	**$2.28**	**$3.20**

Table 2. Summary of 2021 Soybean Budgets

	2021 Soybean Budgets (10 Total)	Yield Est.	Cash Cost /bu	Economic Cost /bu
Budget #	***Dryland***			
57	Conv Till after Corn	45	$5.63	$8.64
58	No-till after Corn	50	$5.66	$8.21
59	No-till Continuous	45	$5.30	$8.08
2021	***Dryland Average***	**47**	**$5.53**	**$8.31**
Budget #	***Irrigated***			
60	Conv Till after Corn	67	$5.32	$8.91
61	Ridge Till after Corn	70	$4.78	$7.91
62	No-till, Narrow Row after Corn	75	$4.69	$7.64
63	No-till, Narrow Row continuous	64	$4.89	$8.35
64	No-till Drilled after Corn - Liberty Link	78	$4.18	$7.00
65	No-till Drilled after Corn - Enlist	78	$4.34	$7.16
66	No-till Drilled after Corn - RR 2 Xtend	78	$4.28	$7.11
2021	***Irrigated Average***	**73**	**$4.64**	**$7.73**

All 2021 soybean budgets utilize state real estate values.

Table 3: Summary of 2021 Wheat Budgets

	2021 Nebraska Wheat Budgets (8 Total)	Yield Est.	Cash Cost /bu	Economic Cost /bu
Budget #	***Dryland***			
74	***Spring Wheat**, No-till after Row Crop (Southwest)	40	$4.25	$6.00
75	No-till after Row Crop (Southwest)	55	$3.15	$4.42
76	No-till, Fallow, 1 crop in 2 years (Panhandle)	70	$3.21	$4.90
77	Stubble Much Fallow, 1 crop in 2 years (Panhandle)	65	$3.25	$5.32
78	Conv. Till, 1 crop in 2 years (Panhandle)	60	$3.42	$5.58
79	No-till, before Corn, 2 crops in 3 years (Southwest)	80	$2.87	$4.16
2021	***Dryland Average***	**62**	**$3.36**	**$5.06**
Budget #	***Irrigated***			
80	No-till after Dry Beans (Panhandle)	105	$2.66	$3.66
81	No-till, in Rotation (Panhandle)	90	$3.55	$4.74
2021	***Irrigated Average***	**98**	**$3.11**	**$4.20**

**Budget #74 is a Spring Wheat budget, others are Winter Wheat*

See cropwatch.unl.edu/budgets for additional 2021 crop budgets, including:

Alfalfa
Corn Silage
Dry Edible Beans
Grain Sorghum
Grass Hay
Millet
Oats
Pasture
Peas
Sorghum Sudan
Sugarbeets
Sunflower
Cover Crop

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